

PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON

DESCRIPTIONS OF SIX NEW GROUND SQUIRRELS
FROM THE WESTERN UNITED STATES.

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Of the six new Spermophiles here described, one (*oregonus*) belongs to the *armatus-beldingi* group, three are subspecies of *mollis*, and two subspecies of *tridecemlineatus*.

Spermophilus oregonus sp. nov.

Type from Swan Lake Valley, Klamath Basin, Oregon. No. 89177, ♀ ad., U. S. Nat. Mus., Biological Survey Coll., June 12, 1897. Collected by Vernon Bailey. Orig. No. 6005.

Characters.—Similar to *S. beldingi* in size and general characters but grayer and lacking the red dorsal area and head patch. Similar to *S. armatus* in color of upper parts, but under side of tail chestnut instead of grizzled gray and black.

Color.—Upper parts buffy-gray, grizzled with black hairs, sometimes becoming pale dull buffy-fulvous on middle of back; under parts buffy or buffy-yellowish, the dark basal fur showing through; nose sometimes pale buffy-fulvous; feet buffy-whitish; tail above: basally like back, distally becoming grizzled black and fulvous, with black tip and edged all round with hoary; tail below: deep chestnut bordered with black and edged with hoary, the black border forming a broad band across end.

Cranial characters.—Skull like that of *S. beldingi* but rostrum more slender, ascending arms of premaxillæ narrower, palate longer behind molars, palatine bones shorter anteriorly, reaching only to plane of middle of 2d molars [in *beldingi* they reach plane of interspace between 1st and 2d molars].

Measurements.—Type specimen: Total length 265; tail vertebræ 57; hind foot 42.

Spermophilus mollis stephensi subsp. nov.

Type from Queen Station, near head of Owens Valley, Nevada. No. ~~29422~~₄₁₅₆₇, ♂ ad., July 12, 1891. Collected by F. Stephens. Orig. No. 718. (Alt. about 6000 ft.)

Characters.—Similar to *S. mollis*, but in summer pelage head and neck to shoulders uniform pinkish buff [of Ridgway's Color Nomenclature].

Color.—*Summer pelage*: Entire head and neck and fore-back to shoulders uniform pinkish-buff, becoming yellowish-buff below; rest of back vinaceous-buff slightly mixed with brown; under parts and fore legs and feet buffy; hind feet soiled whitish; tail above and below buffy, grizzled with dark hairs and edged with buffy.

Cranial characters.—Skull like that of *mollis*, but braincase broader across mastoids; ascending arms of premaxillæ narrower and more pointed; tooth row shorter.

Measurements.—Type specimen: Total length 209; tail vertebræ 49; hind foot 32. Average of 9 specimens from Owens Valley, Calif.: Total length 212; tail vertebræ 50; hind foot 32.4.

***Spermophilus mollis yakimensis* subsp. nov.**

Type from Mabton, Yakima Co., Washington. No. 89331, ♂ ad., U. S. Nat. Mus., Biological Survey Coll., July 16, 1897. Collected by Walter K. Fisher. Orig. No. 323.

Characters.—Similar to *S. mollis* in size and general appearance, but tail slightly shorter; color grayer and less buffy, but not so gray as *canus*. Nasal bones very much longer than in either *mollis* or *canus*.

Color.—Upper parts buffy-gray, finely grizzled with dusky; nose dull rusty fulvous; cheeks and sides of neck grayish, sometimes suffused with pale buffy-yellowish, but never approaching the strong buffy-ochraceous of *mollis*; under parts buffy; feet whitish; tail grizzled fulvous as in *mollis*.

Cranial characters.—Skull like that of *mollis* in size and general characters, but nasal bones much longer, passing backward considerably beyond premaxillæ and ending in a wedge-shaped point; audital bullæ more inflated below plane of meatus (*i. e.*, less flattened); basioccipital slightly broader; incisors heavier.

Measurements.—Type specimen: Total length 215; tail vertebræ 48; hind foot 33. Average of 10 specimens from type locality and adjacent plain: Total length 213; tail vertebræ 46; hind foot 34.2.

***Spermophilus mollis canus* subsp. nov.**

Type from Antelope, Wasco Co., Oregon. No. 78681, ♀ ad., U. S. Nat. Mus., Biological Survey Coll., June 21, 1896. Collected by Vernon Bailey. Original No. 5561.

Characters.—Similar to *S. mollis*, but grayer, slightly smaller, with shorter hind feet and decidedly shorter tail; skull smaller and relatively broader, with much shorter rostrum.

Color.—Upper parts finely grizzled gray and dusky without buffy suffusion; nose dull rusty fulvous; cheeks and sides of neck grayish (not buffy-ochraceous as in *mollis*); thighs dark, with a dull fulvous suffusion very different from the pale buffy-ochraceous of *mollis*; under parts buffy or buffy-gray, more or less grizzled with dark hairs on breast and middle

of belly; feet soiled whitish; tail grayer and less fulvous than in *mollis*. Young similar to young of *mollis*, but decidedly darker; head and neck pale dull-fulvous instead of buffy-ochraceous; tail strikingly shorter and darker.

Cranial characters.—Skull similar to that of *mollis*, but shorter and relatively broader; rostrum conspicuously shorter; molariform teeth smaller (tooth row 1 mm. shorter); nasals shorter but variable, usually ending behind plane of premaxillæ.

Measurements.—Type specimen: Total length 198; tail vertebræ 38; hind foot 30. Average of 3 specimens from type locality: Total length 194.3; tail vertebræ 40; hind foot 30.3.

***Spermophilus tridecemlineatus alleni* * subsp. nov.**

Type from Bighorn Mts., Wyoming. No. 56050, ♂, U. S. Nat. Mus., Biological Survey Coll., Sept. 18, 1893. Collected by Vernon Bailey. Original No. 4383.

Characters.—Size small (nearly as small as *parvus*); ground color of upper parts fully as dark as in typical *tridecemlineatus*; light spots in dorsal rows relatively larger and tail darker and much less reddish than in *tridecemlineatus*.

Cranial characters.—Skull and teeth similar to those of *parvus* (perhaps very slightly larger), but audital bullæ very much smaller.

Measurements.—Type specimen: Total length 211; tail vertebræ 74; hind foot 32.

***Spermophilus tridecemlineatus texensis* subsp. nov.**

Type from Gainesville, Cooke Co., Texas. No. $\frac{2117}{647}$, ♂ ad., Merriam collection, April 15, 1886. Collected by G. H. Ragsdale.

Characters.—Similar to *S. tridecemlineatus*, but smaller; ground color of upper parts, including base of tail, redder; middle stripe of under side of tail uniform deep reddish, not grizzled with black; no yellowish-olive tinge in any pelage and less seasonal difference in color than in any of the other forms.

Color.—*Winter pelage*: Ground color of upper parts, including base of tail, rich deep ferruginous or rusty, slightly grizzled with black hairs; nose grayish, slightly grizzled with rusty; sides of neck, feet, and under parts buffy; head marblings, dorsal stripes and spots, chin and lips buffy-white; rusty under side of tail sometimes partly hidden by buffy tips. *Summer pelage*: Similar to winter pelage, but ground color duller and light stripes and spots more buffy.

* In honor of Dr. J. A. Allen, who first defined and named the subgenus *Ictidomys* to which the *tridecemlineatus* group belongs, and to whom we are indebted for its two best marked members—*pallidus* and *parvus*.